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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/520,159

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Michio Wakamatsu

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EXAMINER

NGUYEN, DAVID Q

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/520,159	<b>Applicant(s)</b> WAKAMATSU, MICHIO	
	<b>Examiner</b> DAVID Q. NGUYEN	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6 and 10-14 is/are rejected.
- 7) ☒ Claim(s) 4 and 7-9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 10, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly et al. (US 6,671,510 B1) in view of Johnston et al. (US 5,787,360).

Regarding claim 10, Kelly et al. disclose a mobile telephone system using a local communication network comprising: a connection control device which is installed in a local communication network (see fig. 1, home application server 24); a plurality of communication stations which function as PHS-CS and are connected to the said connection control device via an Internet network (see fig. 1, base station 18) and a plurality of mobile terminals which function as PHS-PS (see fig. 1 and mobile station 12), characterized in that:

each of the said mobile terminals comprises a radio section and a communication section which carry out communication at least with the said communication stations in compliance with radio communication protocol (see fig. 1, mobile station 12 communicates with base station 16);

each of the said communication stations comprises a location registration processing section which carries out location registration processing for the particular mobile terminal located within the vicinity thereof (see col. 5, lines 3-39), a radio communication protocol processing section which communicates with the said mobile terminal in compliance with radio communication protocol (see col. 5, lines 3-39; GSM protocol), an Internet protocol processing

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section which communicates with the said connection control device in compliance with Internet protocol (see col. 5, lines 3-39; IP address), and an IP address managing section which manages an IP address assigned to the said mobile terminal which in turn connects to the said connection control devices (see col. 5, lines 19-39);

the said connection control device comprises a location information database (see fig. 1, database) which stores the IP address of the particular communication station and location information in the said respective mobile terminals, an Internet protocol processing section which communicates with the said respective connection control devices in compliance with Internet protocol, and a connection control section which carries out connection control according to communication data from the particular communication station, and carries out connection control based on the location information in the particular mobile terminal obtained from the said location information database based on existing communication data (see fig. 1; col. 5, line 18 to col. 6, line 45).

Kelly et al do not mention a location registration processing section which holds a plurality of IP addresses.

However, Johnston et al. disclose each of the said communication stations comprises a location registration processing section which holds a plurality of IP addresses (see col. 11, line 15 to col. 12, line 10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Johnston et al. to Kelly et al in order to determine whether the mobile station is in home base station or visitor base station.

Regarding claim 13, Kelly et al. disclose a communication station that is installed in the local communication network, and relays communication between a connection control device

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and a mobile terminal characterized by comprising: a location registration processing section which carries out location registration processing for the mobile terminal located within the vicinity thereof (see col. 5, lines 3-39), a radio communication protocol processing section which communicates with the mobile terminal in compliance with radio communication protocol, an Internet protocol processing section which communicates with the connection control device in compliance with Internet protocol, and an IP address managing section which manages an IP address assigned to the mobile terminal which in turn connects to the connection control device.

Kelly et al do not mention a location registration processing section which holds a plurality of IP addresses.

However, Johnston et al. disclose each of the said communication stations comprises a location registration processing section which holds a plurality of IP addresses (see col. 11, line 15 to col. 12, line 10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Johnston et al. to Kelly et al in order to determine whether the mobile station is in home base station or visitor base station.

Regarding claim 14, Kelly et al. disclose a mobile terminal connected to a connection control device installed in a local communication network via a communication station, comprising a location registration processing section which carries out location registration processing for the mobile terminal located within the vicinity thereof (see col. 5, lines 19-39), a radio communication protocol processing section which communicates with the mobile terminal in compliance with radio communication protocol (see col. 5, lines 19-39, GSM protocol), an Internet protocol processing section which communicates with the connection control device in compliance with Internet protocol (see col. 5, lines 3-39; IP address), and an IP address

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managing section which manages an IP address assigned to the mobile terminal which in turn connects to the connection control device (see col. 5, lines 19-39), characterized by comprising: a mode switching section, where the said mode switching section switches the mobile terminal to operate at least between an IP telephone mode and a PHS public mode or private mode (see col. 3, lines 39-50; DECT digital enhanced cordless telecommunications system and LAN).

Kelly et al do not mention a location registration processing section which holds a plurality of IP addresses.

However, Johnston et al. disclose each of the said communication stations comprises a location registration processing section which holds a plurality of IP addresses (see col. 11, line 15 to col. 12, line 10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Johnston et al. to Kelly et al in order to determine whether the mobile station is in home base station or visitor base station.

2. Claims 1-3, 5-6 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly et al. (US 6,671,510 B1) in view of Johnston et al. (US 5,787,360) and further in view of Kang et al. (US 7,321,944 B2).

Regarding claim 1, Kelly et al. disclose a mobile telephone system using a local communication network comprising: connection control devices which are respectively installed on a plurality of local communication networks (see fig. 1; PBX 26 and PBX 42); an integration exchange server which is connected to the said respective connection control devices via a private Internet network (see fig.1; home application server 24 and visited application server 48); a plurality of communication stations which function as PHS-CS and are wire-connected to the said respective connection control devices and installed along with a subscriber terminal of a

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local communication network (see fig. 1; base station 16 and base station 38); and a plurality of mobile terminals which function as PHS-PS (see fig. 1; mobile station 12), characterized in that:

each of the said mobile terminals comprises a radio section (see fig. 1) and a communication section which carry out communication at least with the said communication stations in compliance with a radio communication protocol (see fig. 1, mobile station 12 communicates with base station 16);

each of the said communication stations comprises a location registration processing section which carries out location registration processing for the particular mobile terminal located within the vicinity thereof (see col. 5, lines 3-39), a radio communication protocol processing section which communicates with the said mobile terminal in compliance with radio communication protocol (see col. 5, lines 3-39; GSM protocol), an Internet protocol processing section which communicates with the said connection control device in compliance with Internet protocol (see col. 5, lines 3-39; IP address), and an IP address managing section which manages an IP address assigned to the said mobile terminal which in turn connects to the said connection control devices (see col. 5, lines 19-39);

each of the said connection control devices communicates with the said respective communication stations and the said integration exchange server in compliance with Internet protocol (see col. 4, line 37 to col. 5, line 40 and fig. 1), and a connection control section which carries out connection control based on communication data emanating from the said communication station or the said integration exchange server (see col. 4, line 37 to col. 5, line 40 and fig. 1);

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and the said integration exchange server comprises a location information database which stores the IP address of the said connection control devices, the IP addresses of the said respective communication stations, and location information in the said respective mobile terminals, an Internet protocol processing section which communicates with the said respective connection control devices in compliance with Internet protocol (see fig. 1; col. 5, lines 19-40 and col. 6, lines 30-45), and a connection control section which carries out connection control based on communication data coming from the said connection control device, and carries out connection control based on location information in the said mobile terminal obtained from the said location information database based on existing communication data (see fig. 1; col. 5, lines 19-40 and col. 6, lines 30-45).

Kelly et al do not mention a location registration processing section which holds a plurality of IP addresses, and **each of the said connection control devices comprises** an Internet protocol processing section which holds an IP address on the Internet.

However, Johnston et al. disclose each of the said communication stations comprises a location registration processing section which holds a plurality of IP addresses (see col. 11, line 15 to col. 12, line 10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Johnston et al. to Kelly et al in order to determine whether the mobile station is in home base station or visitor base station.

And Kang et al. disclose **each of the said connection control devices comprises** an Internet protocol processing section which holds an IP address on the Internet (see fig. 2 and col. 2, lines 55-60). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Kang et al. to Kelly et al in view

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of Johnston et al. in order to determine location of base station which the mobile terminal is communicating with.

Regarding claim 2, the system of Kelly et al. in view of Johnston et al. and further in view of Kang et al. also comprises characterized in that the said connection control device further comprises a protocol converting section which converts the communication data from the said communication station or said integration exchange server to data compliant with a protocol on the PSTN, thereby causing the said connection control section to establish connection with a call destination routing through a public line network (see fig. 1 and col. 10, line 51 to col. 11, line 67 of Johnston et al.).

Regarding claim 3, the system of Kelly et al. in view of Johnston et al. and further in view of Kang et al. also comprises the said integration exchange server is further configured to be connected to a public Internet network, and if the call destination is an Internet telephone, the said connection control section can connect to the call destination routing through the public Internet network (see fig. 1, and col. 3, line 38 to col. 5, line 40 of Kelly).

Regarding claim 5, the system of Kelly et al. in view of Johnston et al. and further in view of Kang et al. also comprises the said integration exchange server is further connected to the integration exchange server installed abroad via the private Internet network (see fig. 1, and col. 3, line 38 to col. 5, line 40 of Kelly).

Regarding claim 6, the system of Kelly et al. in view of Johnston et al. and further in view of Kang et al. also comprises the said communication station carries out handover processing if the said mobile terminal is moved while a call is in progress (see fig. 1, and col. 3, line 38 to col. 5, line 40 of Kelly).

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Regarding claim 11, the system of Kelly et al. in view of Johnston et al. and further in view of Kang et al. also comprises said mobile terminal comprises a mode switching section, the said mode switching section switching the said mobile terminal to operate at least between an IP telephone mode and a PHS public mode or private mode (see fig. 1, and col. 3, line 38 to col. 5, line 40 of Kelly).

Regarding claim 12, the system of Kelly et al. in view of Johnston et al. and further in view of Kang et al. also comprises if the said mobile terminal selects the IP telephone mode by means of the said mode switching section, the said mobile terminal receives control channel information transmitted from the said communication station while the control channel information is masked at a predetermined bit position (see fig. 1, and col. 3, line 38 to col. 5, line 40 of Kelly).

### ***Allowable Subject Matter***

3. Claims 4 and 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 4, the system of Kelly et al. in view of Johnston et al. and further in view of Kang et al. does not comprise the said integration exchange server is further configured to be connected to an overseas exchange installed by a dedicated international line provider, and if the call destination is a mobile telephone of a public line network subscriber, the said connection control section can connect to the call destination routing through the public line network via the overseas exchange, as specified in the claim.

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Regarding claims 7-9, the system of Kelly et al. in view of Johnston et al. and further in view of Kang et al. does not comprise said local communication network is a CATV communication network; said communication station comprises a CATV data reception processing section which transmits CATV data to a TV receiver; and said connection control device comprises a CATV service processing section which transmits CATV data to the subscriber terminal and the said communication station, as specified in the claims.

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID Q. NGUYEN whose telephone number is (571)272-7844. The examiner can normally be reached on 8:30AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bost Dwayne can be reached on (571)272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David Q Nguyen/  
Primary Examiner, Art Unit 2617

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